Technical training.
Product information.

BMW Apps/ConnectedDrive

Edited for the U.S. market by:
BMW Group University
Technical Training
ST1108 4/1/2011

BMW Service

General information

Symbols used

The following symbol is used in this document to facilitate better comprehension or to draw attention to very important information:

Contains important safety information and information that needs to be observed strictly in order to guarantee the smooth operation of the system.

Information status and national-market versions

BMW Group vehicles meet the requirements of the highest safety and quality standards. Changes in requirements for environmental protection, customer benefits and design render necessary continuous development of systems and components. Consequently, there may be discrepancies between the contents of this document and the vehicles available in the training course.

This document basically relates to the European version of left hand drive vehicles. Some operating elements or components are arranged differently in right-hand drive vehicles than shown in the graphics in this document. Further differences may arise as the result of the equipment specification in specific markets or countries.

Additional sources of information

Further information on the individual topics can be found in the following:

- Owner's Handbook
- Integrated Service Technical Application.

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The information contained in this document forms an integral part of the technical training of the BMW Group and is intended for the trainer and participants in the seminar. Refer to the latest relevant information systems of the BMW Group for any changes/additions to the technical data.

Status of the information: **November 2010**
VH-23/International Technical Training

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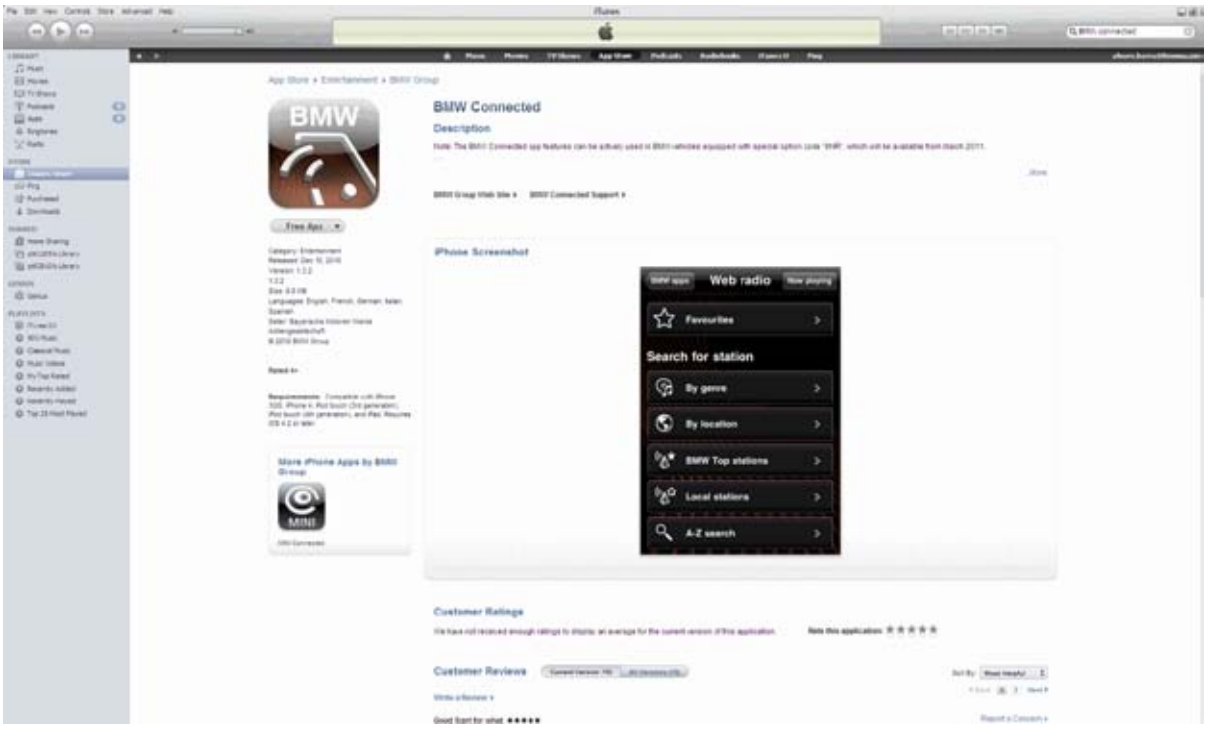
BMW Apps/ConnectedDrive

1. Introduction

1.1. BMW Apps

Apps, or "applications", have been developed for smartphones such as the Apple™ iPhone™ for some time now. These apps (or applications) are user programs and are available to download from the Internet either for free or for a charge. (for example from the Apple™ iTunes™ store). Once downloaded, the data installs itself on the smartphone. If a smartphone is connected to the vehicle, the software remains on the smartphone and is not transferred to the vehicle. This allows new functions to be developed much more quickly. Therefore development costs are low and not dependent on the life cycle of the vehicles and their hardware (headunits, telephone control units, etc.).

As from December 2010, customers can download the **BMW Connected App** from the Apple ™iTunes™ Store and install it on their iPhone™. The original Apple™ USB cable is used to connect the smartphone to the vehicle. Additional functions are available to the customer once the smartphone has been connected to the vehicle using the specially developed snap-in adapter. No other smartphones or operating systems Apps are currently supported by the BMW App.



BMW Connected in Apple iTunes™ portal

1.2. Video playback

When MTV™ broadcasted the video clip “Video Killed The Radio Star" on August 1st, 1981, this heralded the era of the video clip. “YouTube™ launched an Internet video portal on February 14th, 2005 where the user can view and upload video clips free of charge. The Internet site contains film and TV clips, music videos and self-made films. Since 2007, BMW Group has expanded its Internet presence with the site www.bmw.tv where video clips are available to the public (See BMW TV App). The files can be downloaded from there in wmv or mp4 format.

BMW Apps/ConnectedDrive

1. Introduction

Video clips are therefore now part of our everyday life and now they can also be played in BMW vehicles. To achieve this, a video connection between the vehicle and the Apple™ iPhone™ has been developed in order to be able to play the video clips from the smartphone on the vehicle's CID.

1.3. PlugIn

Smartphones are assuming more and more importance among consumers. This is why BMW Group made the decision to support the connection of these devices and their software (referred to as apps) to the vehicle electrical system. The PlugIn feature allows the user to switch from the familiar BMW user interface (iDrive controller in conjunction with the Central Information Display) to the traditional Apple™ interface. The PlugIn feature essentially supports the iPod™ function of the iPhone™.

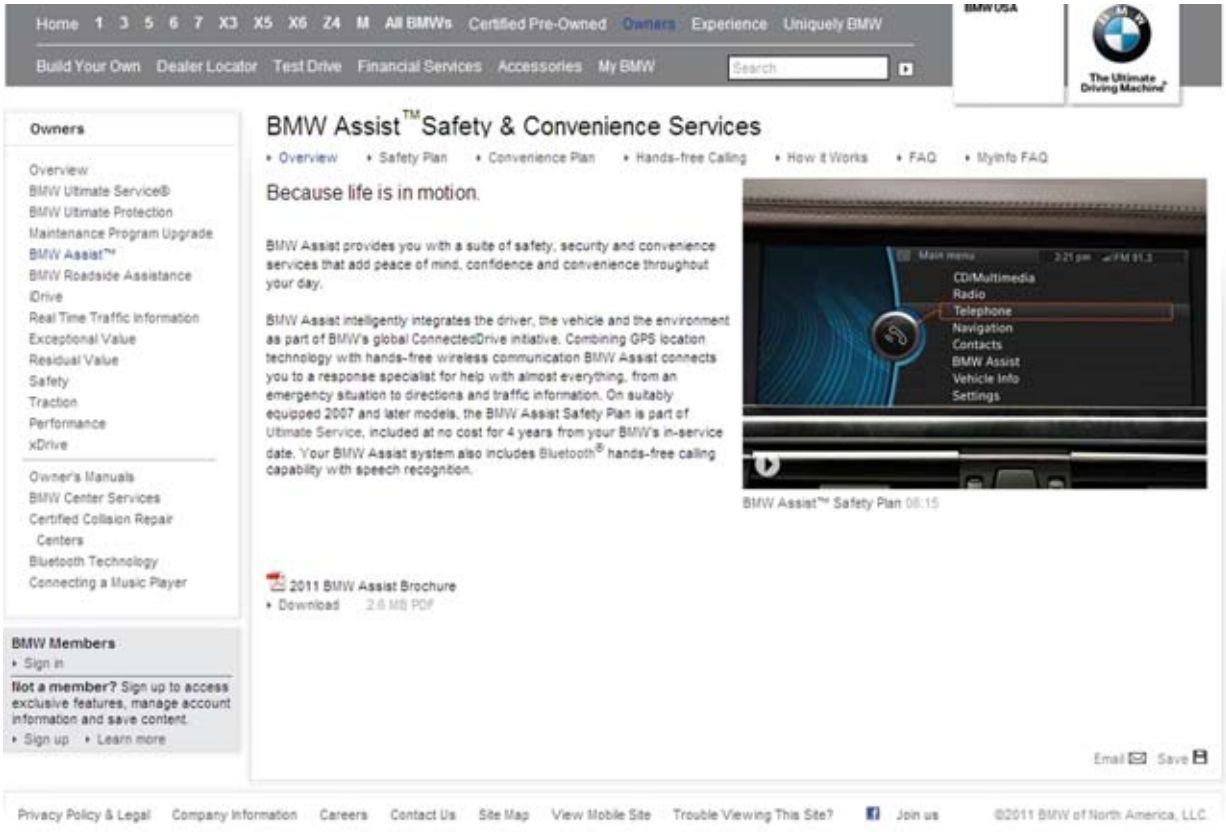
1.4. ConnectedDrive

BMW Assist intelligently integrates the driver, the vehicle and the environment as part of BMW's global ConnectedDrive initiative. Combining GPS location technology with hands-free wireless communication BMW Assist connects you to a response specialist for help with almost everything, from an emergency situation to directions and traffic information. On suitably equipped 2007 and later models, the BMW Assist Safety Plan is part of Ultimate Service (included currently at no cost for 4 years from your BMW's in-service date). Your BMW Assist system also includes Bluetooth® hands-free calling capability with speech recognition.

The innovative services that come with BMW Assist ensure more safety, comfort and Infotainment options in BMW vehicles. For example: The introduction of the first fully-fledged iPod interface in the vehicle and Head-Up Display in 2008. The implementation of the remote functions which enabled customers for the first time unlock the vehicle via a service provider. The implementation of BMW Search which allows online access to the latest weather forecasts, and delivers DOW, NASDAQ and S&P 500 stock indices from Bloomberg to the iDrive display right inside your vehicle. Customers can access news headlines covering US, world, sports, business and BMW topics directly with the text-to-speech function available on 2010 and later models.

BMW Apps/ConnectedDrive

1. Introduction



BMW Assist portal

BMW Apps/ConnectedDrive

2. Rollout Scenario

The innovations described in the introduction can be ordered and used by the customer together with the Navigation Headunit Professional (SA 609) with Combox (BMW Assist SA 639, SA 6NL) and in conjunction with the new optional equipment **BMW Apps (SA6NR)**. The following table describes the rollout times at which the BMW Apps (SA 6NR) optional equipment was integrated in the following BMW vehicles.

Product line	Development series	Variants	Implementation dates for vehicles in Europe and the US
L2	E82	1-Series Coupe	03/2011
L2	E82 M	1-Series M Coupe	04/2011
L2	E88	1-Series Convertible	03/2011
L2	E89	Z4	03/2011
L2	E90 and E90M	3-Series Saloon	03/2011
L2	E91	3-Series Touring	03/2011
L2	E92 and E92M	3-Series Coupe	03/2011
L2	E93 and E93M	3-Series Convertible	03/2011
L4	E70	X5	04/2011
L4	E71	X6	04/2011
L4	E72	X6 active hybrid	04/2011
L4	F25	X3	04/2011
L6	F07	5-Series Gran Turismo	03/2011
L6	F10	5-Series Saloon	03/2011
L6	F12	6–Series Convertible	03/2011
L6	F01	7-Series Saloon	03/2011
L6	F02	7-Series Saloon, long wheelbase	03/2011
L6	F03	7-Series Saloon high equipment 03/2011 Security	03/2011
L6	F04	7-Series Saloon, active hybrid	03/2011

BMW Apps/ConnectedDrive

3. System wiring diagrams

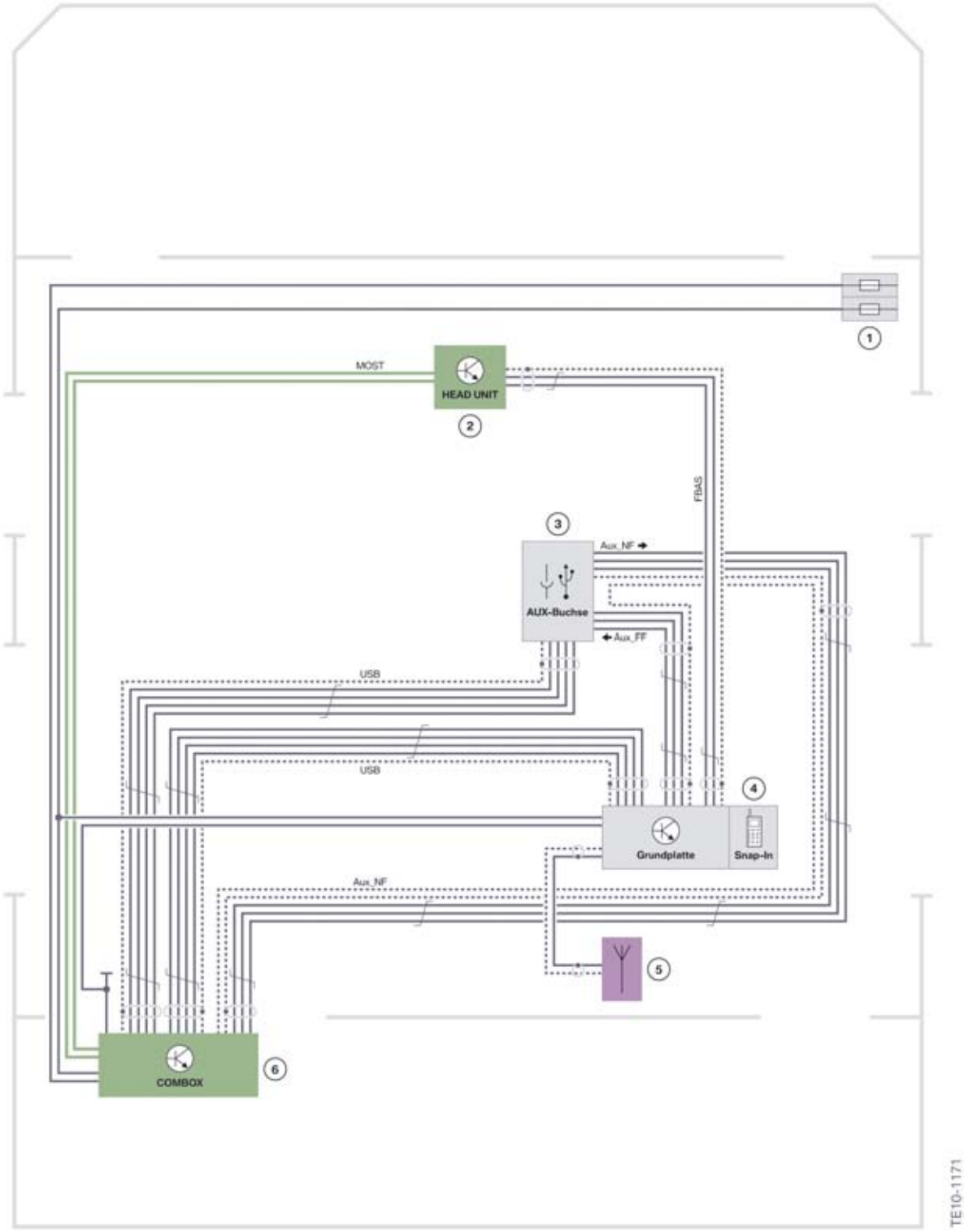
3.1. BMW 1-Series, 3-Series, X5- and X6-Series

3.1.1. Combox and interfaces

Combox and interfaces (SA6FL and SA6NF)

BMW Apps/ConnectedDrive

3. System wiring diagrams



Wiring diagram for BMW 1-Series, 3-Series, X5- and X6-Series

Index	Explanation
1	Power distribution box, front right
2	Headunit
3	AUX-IN connection and USB audio interface
4	Video base plate and fixture in center console for video ready “Media” snap-in adapter
5	Mobile radio antenna in roof fin
6	Combox

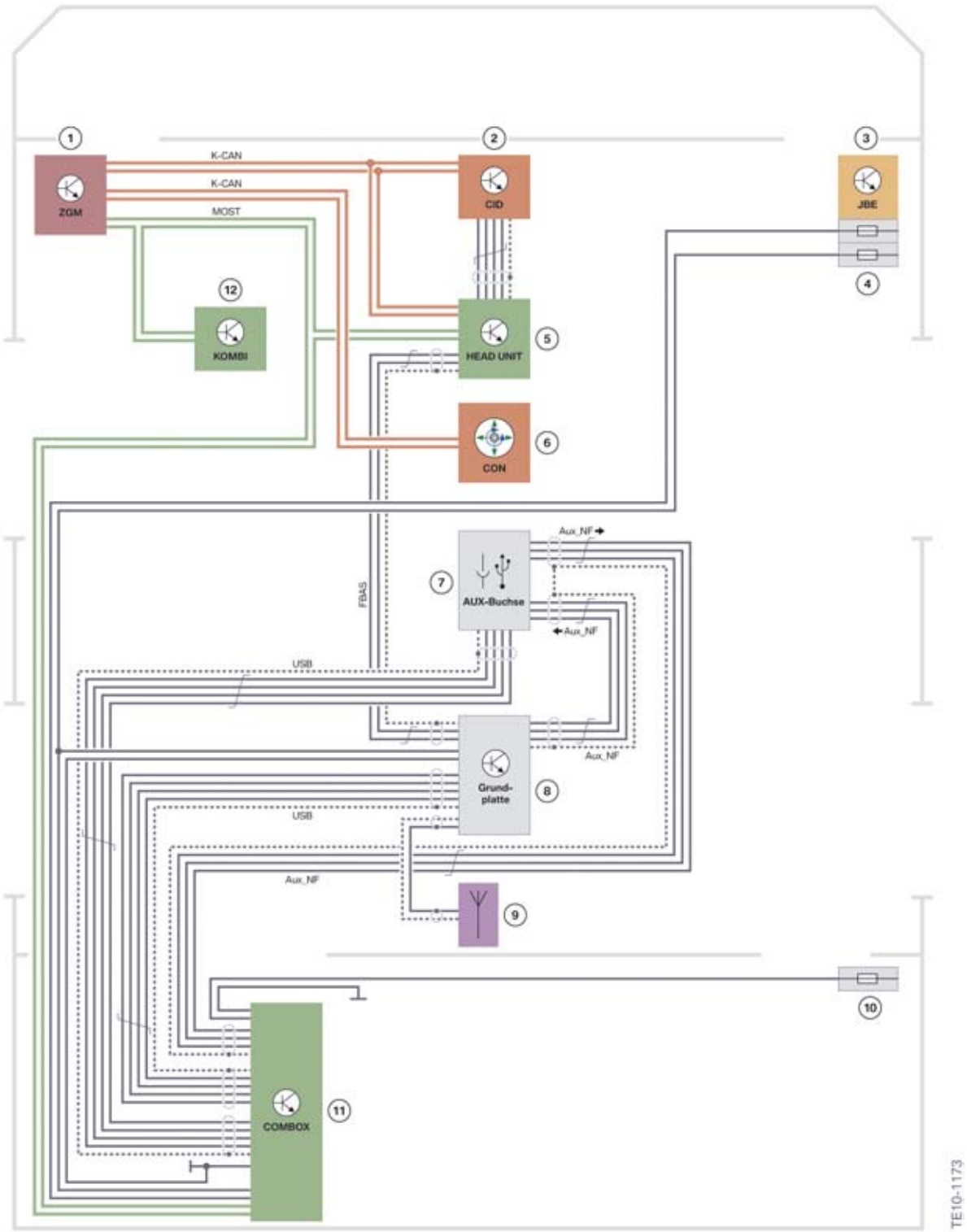
3.2. BMW X3 (F25)

3.2.1. Combox and interfaces

Combox and interfaces (SA6FL and SA6NF)

BMW Apps/ConnectedDrive

3. System wiring diagrams



Wiring diagram for BMW X3 (F25)

BMW Apps/ConnectedDrive

3. System wiring diagrams

Index	Explanation
1	Central gateway module (ZGM)
2	Central information display (CID)
3	Junction box electronics (JBE)
4	Power distribution box, front right
5	Headunit
6	Controller (CON)
7	AUX-IN connection and USB audio interface
8	Video base plate and fixture in center console for video ready “Media” snap-in adapter
9	Mobile radio antenna in roof fin
10	Rear right power distribution box
11	Combox

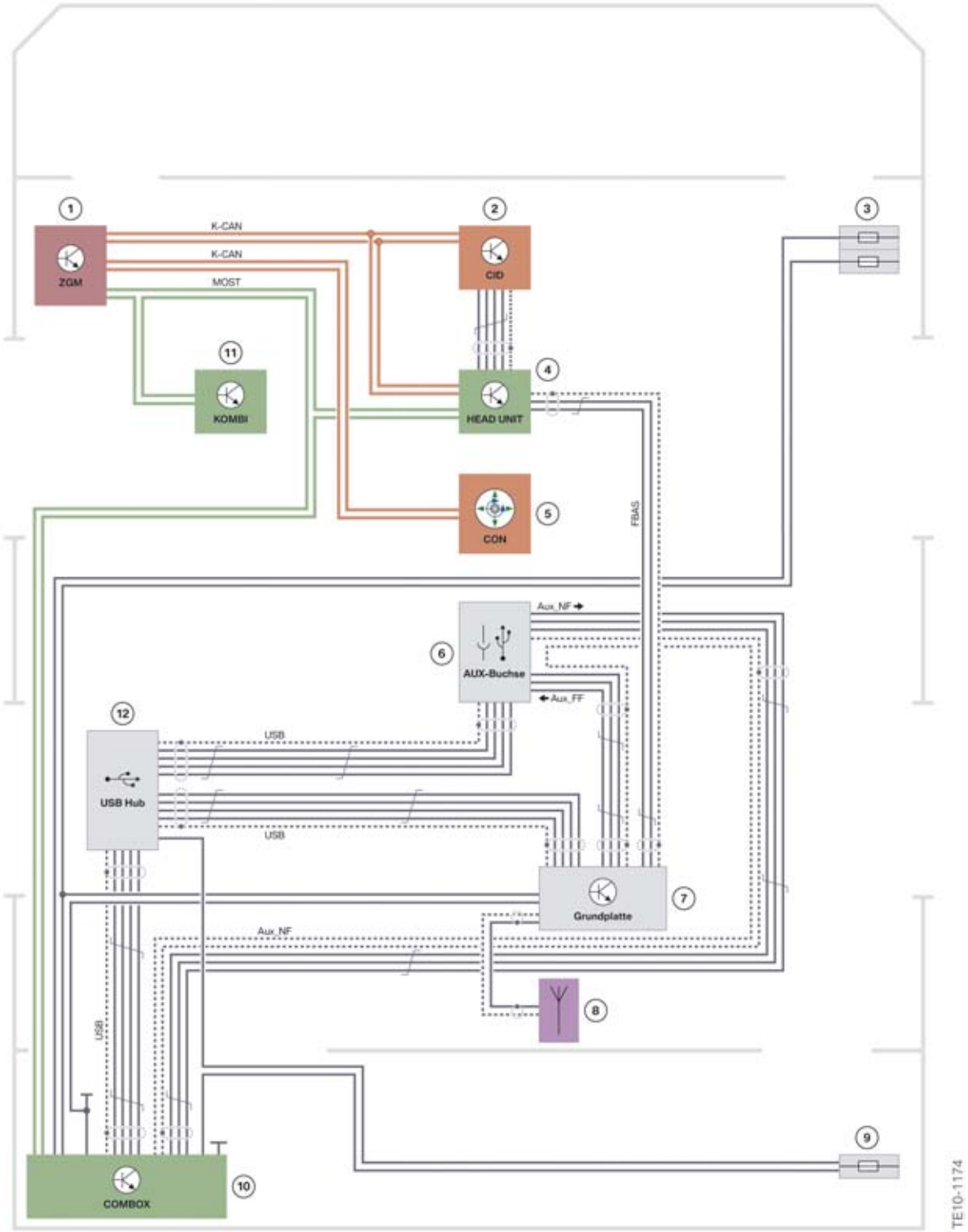
3.3. BMW 5-Series and 7-Series model range

3.3.1. Combox and interfaces

Combox and interfaces (SA6FL and SA6NF) with USB hub

BMW Apps/ConnectedDrive

3. System wiring diagrams



Wiring diagram for vehicles in BMW 7-Series model range and 5-Series Grand Turismo with USB hub

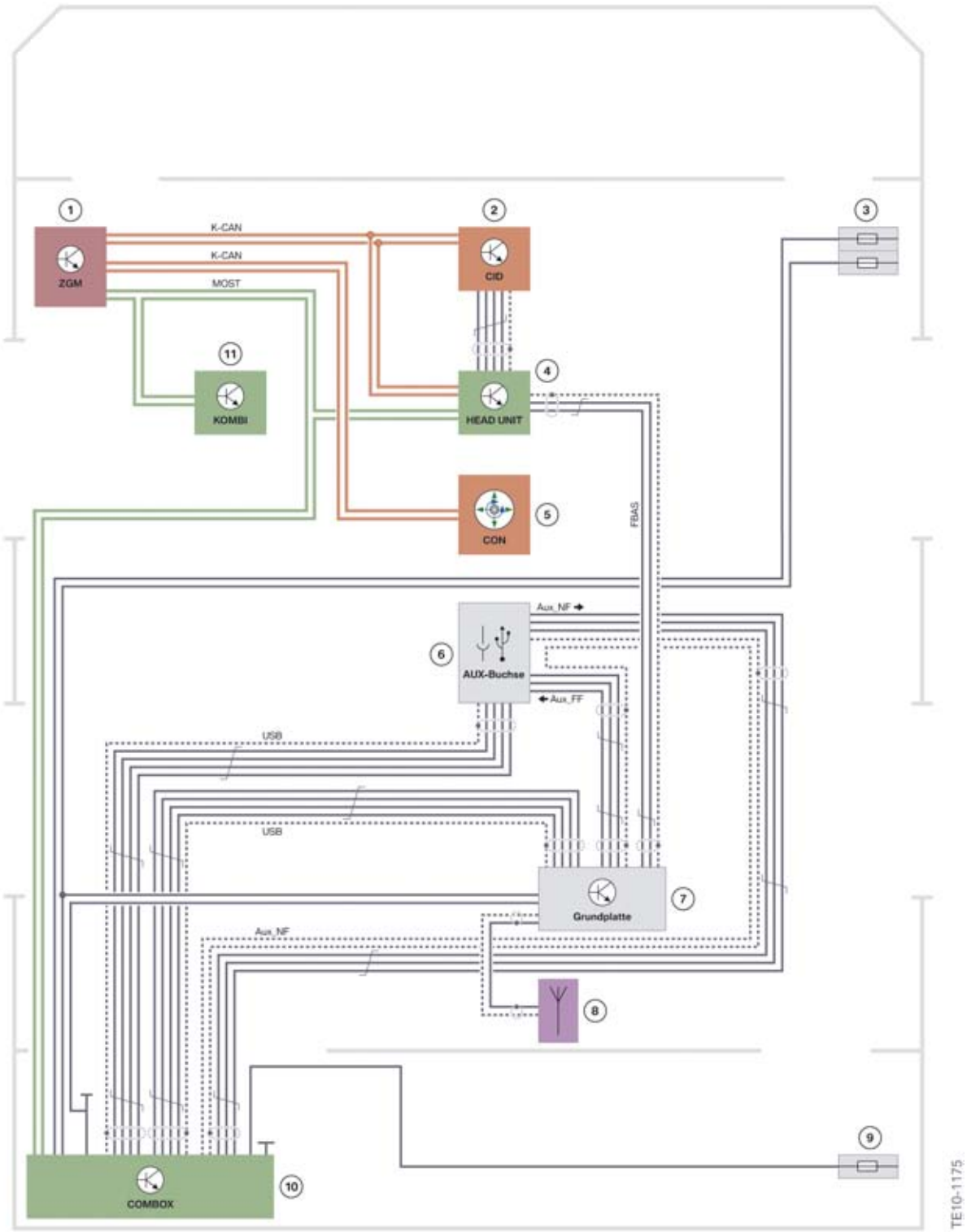
Index	Explanation
1	Central gateway module (ZGM)
2	Central information display (CID)
3	Power distribution box, front right
4	Headunit
5	Controller (CON)
6	AUX-IN connection and USB audio interface
7	Video base plate and fixture in center console for video ready “Media” snap-in adapter
8	Mobile radio antenna in roof fin
9	Rear right power distribution box
10	Combox
11	Instrument panel (KOMBI)
12	USB hub

3.3.2. Combox and interfaces

Combox and interfaces (SA6FL and SA6NF) without USB hub

BMW Apps/ConnectedDrive

3. System wiring diagrams



Wiring diagram for vehicles in BMW 5-Series model range without USB hub

BMW Apps/ConnectedDrive

3. System wiring diagrams

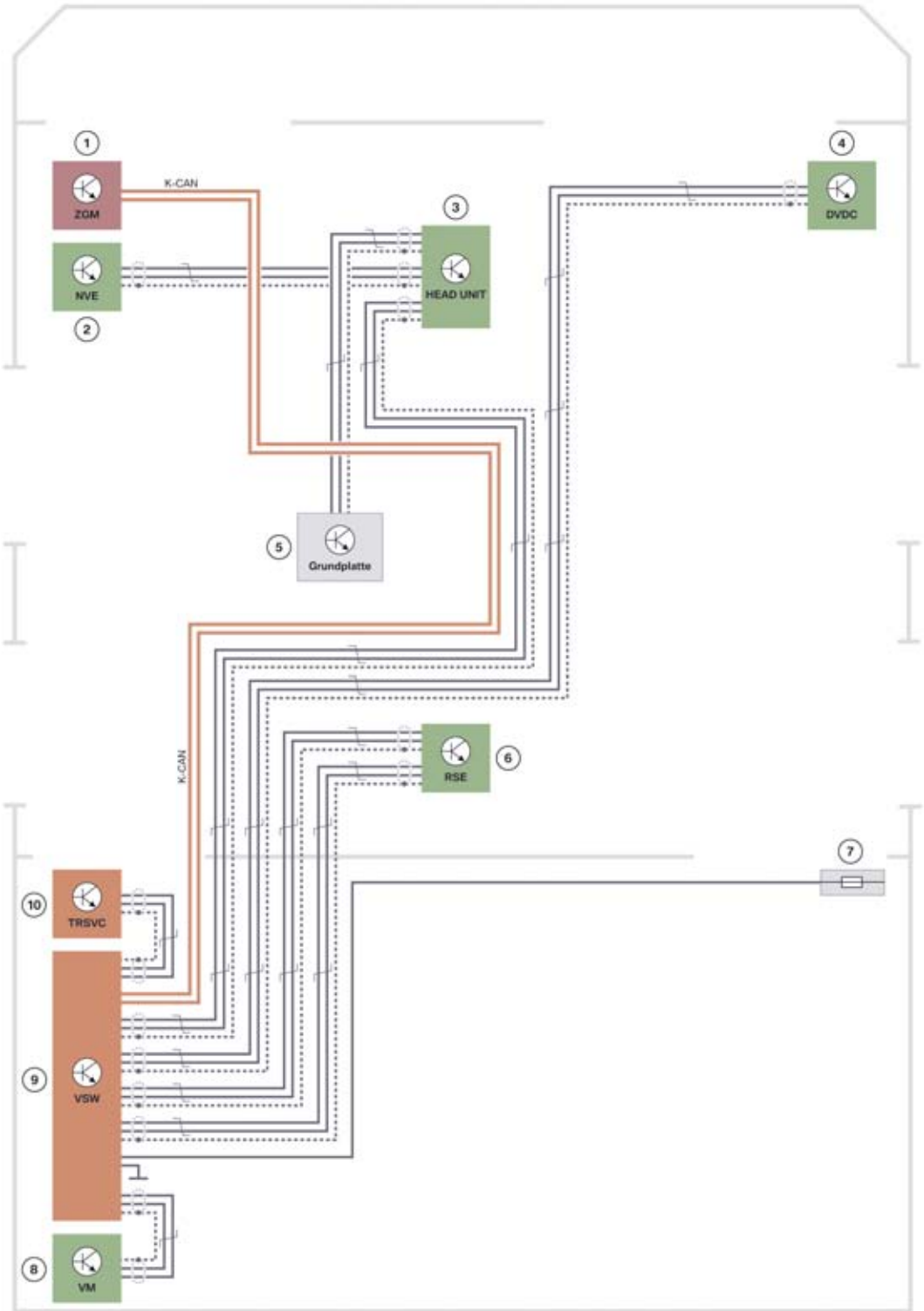
Index	Explanation
1	Central gateway module (ZGM)
2	Central information display (CID)
3	Power distribution box, front right
4	Headunit
5	Controller (CON)
6	AUX-IN connection and USB audio interface
7	Video base plate and fixture in center console for video ready “Media” snap-in adapter
8	Mobile radio antenna in roof fin
9	Rear right power distribution box
10	Combox
11	Instrument panel (KOMBI)

3.3.3. Video switch

Due to the many optional extras offered in BMW F0x model vehicles, all the Color Video Blanking Signal (CVBS) inputs in the CIC/headunit are occupied, thus the addition of a video switch is required in these vehicles in order to handle all CVBS signals. In the F25 however the video switch has been omitted. In this case an item of optional equipment has to be omitted due to the optional equipment control (DVD changer, camera module for the rear view camera w/ top view or video connection via SA 6NR).

BMW Apps/ConnectedDrive

3. System wiring diagrams



Video switch in vehicles in the large series

BMW Apps/ConnectedDrive

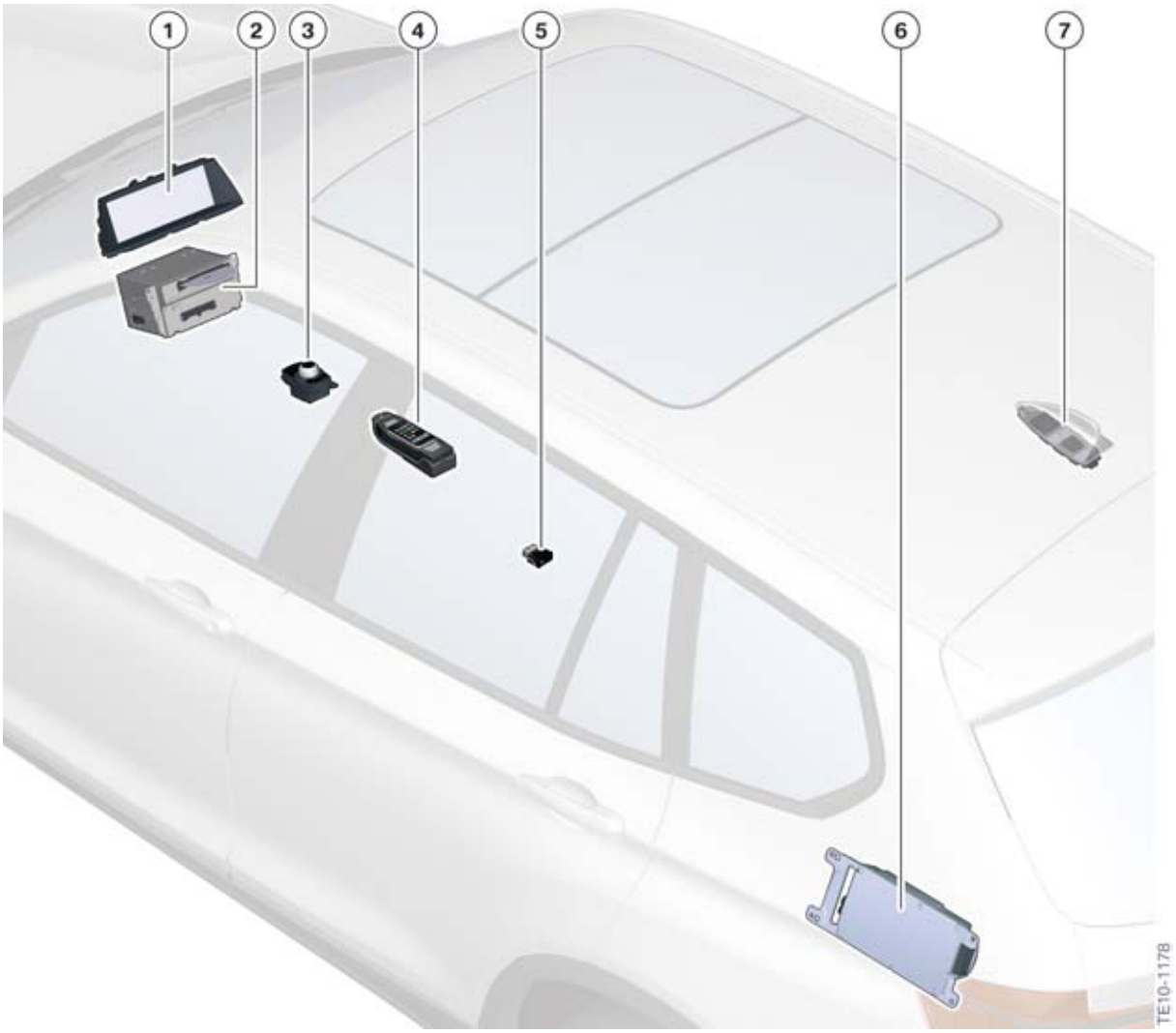
3. System wiring diagrams

Index	Explanation
1	Central gateway module (ZGM)
2	Night vision electronics (NVE)
3	Headunit
4	DVD changer (DVDC)
5	Video base plate and fixture in center console for ”Media” snap-in adapter
6	Rear seat entertainment (RSE)
7	Rear right power distribution box
8	Video module (VM) (Not US)
9	Video switch (VSW)
10	Camera module for all-round vision camera (TRSVC)

BMW Apps/ConnectedDrive

4. System components

The individual system components required to run and display apps are listed below. These components are also required for the video connection.



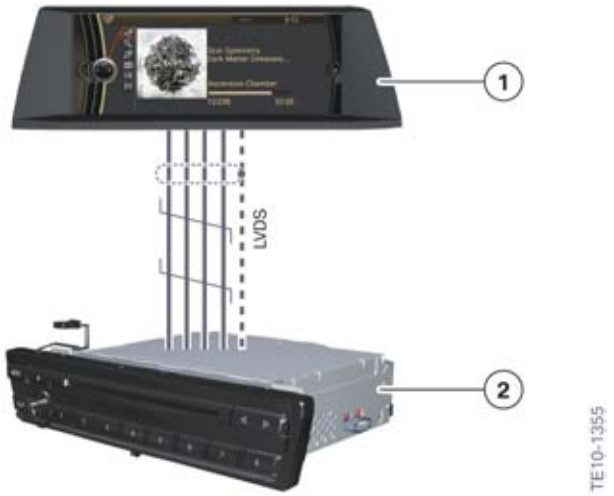
Overview of components for new A4A features

Index	Explanation
1	Central information display (CID)
2	Headunit
3	Controller
4	Smartphone Integration Video base plate and video ready “Media” snap-in adapter with iPhone™.
5	Aux-in connection and USB interface
6	Combox
7	Telephone antenna

BMW Apps/ConnectedDrive

4. System components

4.1. CID and headunit



Headunit and display (CID)

Index	Explanation
1	Central information display (CID)
2	Headunit

The headunit and CID are connected via a Low Voltage Differential Signalling (LVDS) line. In this case, the analogue video signals in the headunit (e.g. CVBS) are converted into the LVDS digital video signal.

4.2. Controller

The familiar BMW operating concept used up until now can be adapted to the Apple™ philosophy by navigating with the controller to the "PlugIn" submenu of the ConnectedDrive menu. For more information on this, refer to the “ConnectedDrive” chapter. The connection of the controller to the vehicle electrical system is the same as vehicles not equipped with SA 6NR Apps.

4.3. Smartphone Integration (BMW Apps SA 6NR)

Audio playback via an external device (e.g. iPod, USB stick) is already possible due to the way in which components of the optional equipment **Smartphone Integration (SA 6NF)** have been integrated into the vehicle system. Video playback is now available in combination with **BMW Apps (SA 6NR)**. This is currently only available for the Apple™ iPhone™ and is made possible by placing the smartphone in the specially development “Media” snap-in adapter.

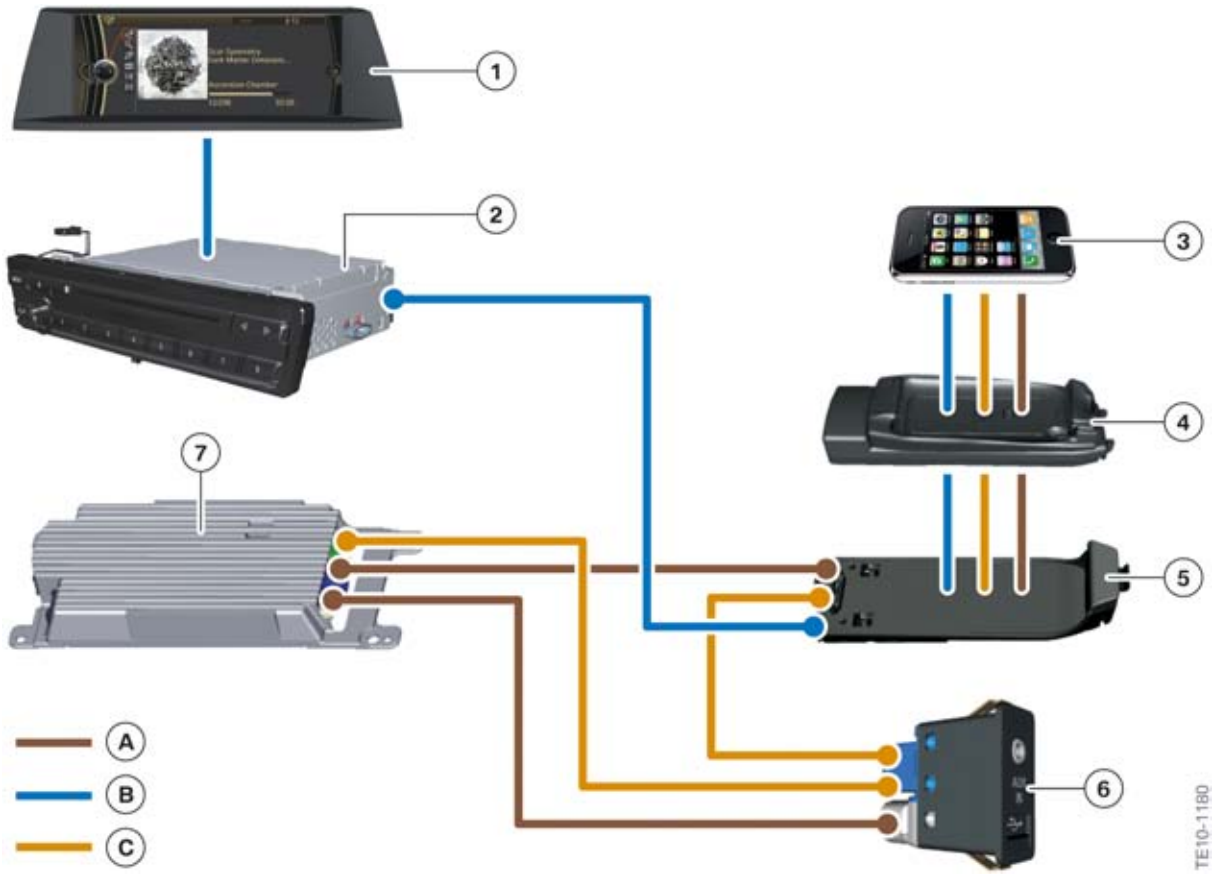
The Apple™ iPhone™ is the first smartphone for which a suitable BMW snap-in adapter has been developed. Currently there are several snap in adapters available from BMW for the Apple™ iPhone™ depending on vehicle model year, equipment option, available features and device version. When addressing a customer complaint please verify that you are using the correct snap in adapter for that application.

BMW Apps/ConnectedDrive

4. System components

The signals that transmit the sounds and images in the video files follow different paths in the vehicle. The image data is sent from the smartphone to the headunit in the form of an analogue Color Video Blanking Signal (CVBS) via the video base plate, snap-in adapter and wiring harness. They are converted to a digital low voltage differential signal (LVDS) in the headunit and displayed at the CID.

The audio signals are sent to the Combox via an AF (audio frequency) signal, then also transmitted to the headunit via the Media Oriented System Transport (MOST) bus from where they are then sent to the speakers via the HiFi or Top-Hifi amplifier.



Function plan A4A

Index	Explanation
1	Central information display (CID)
2	Headunit
3	iPhone™
4	Video ready “Media” snap-in adapter
5	Video base plate (SA6NR)

Index	Explanation
6	USB port in center console
A	USB connection
B	Video connection
C	AUX-AF connection

4.3.1. “Media” snap-in adapter

A description of the redesigned “Media” snap-in adapter is provided below. This can be ordered via the Electronic Parts Catalogue for the iPhone™ 3G/3GS and the iPhone™ 4. Two panels on top of the adapter have been colored silver so it can be clearly differentiated from its predecessor.

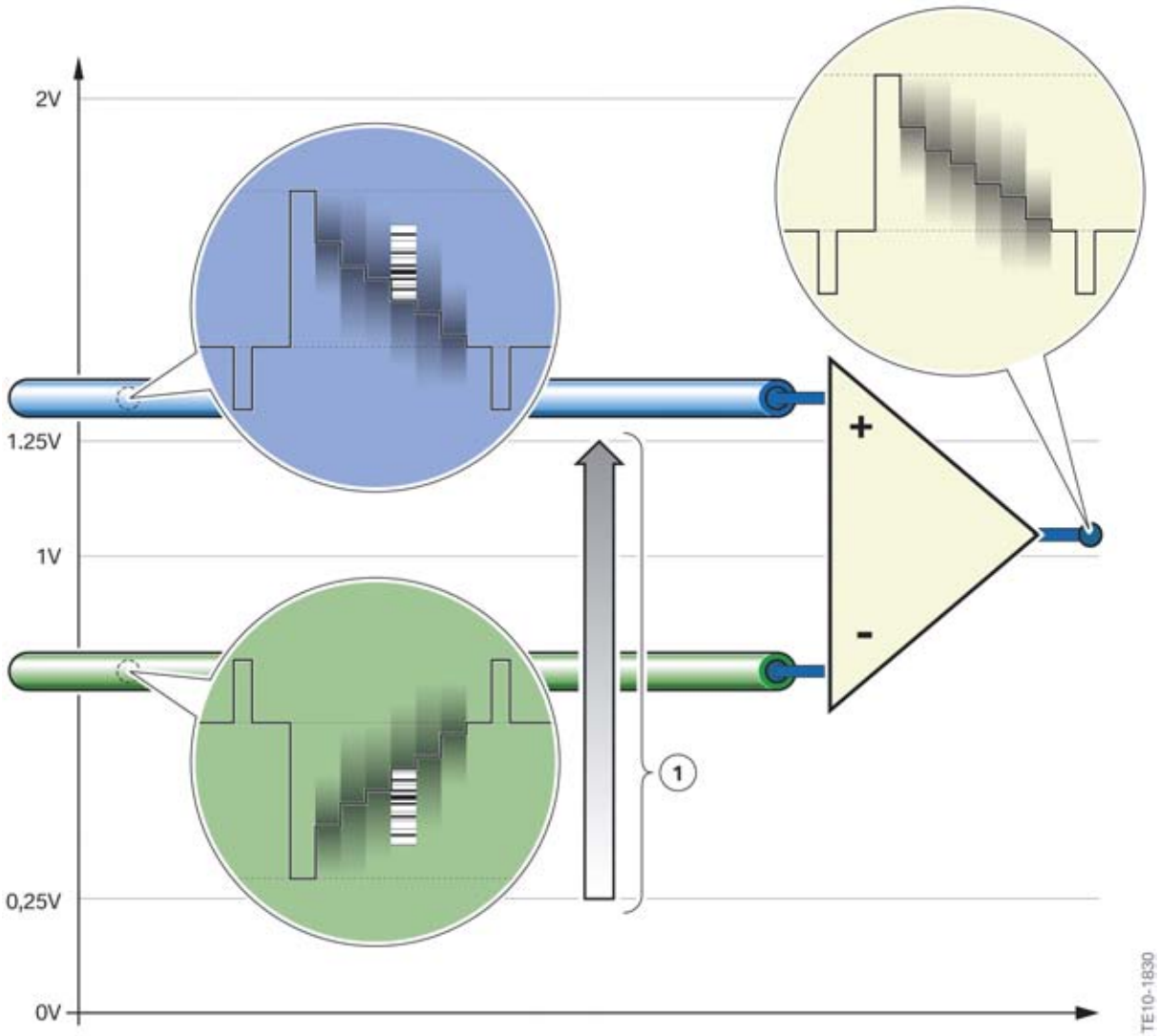
“Video ready” snap-in adapter

Index	Explanation
1	Front view of snap-in adapter
2	Rear view of snap-in adapter
3	Label with BMW part number
4	Label containing information “Video Ready”

BMW Apps/ConnectedDrive

4. System components

This modified snap-in adapter contains a chip that converts the video signal from the iPhone™ (1 wire + ground) into a differential video signal (CVBS) (2 wires + ground). It also contains resistors that adjust the level to 75 ohm. The conversion to 2 wires + ground is made because when a fault occurs with differential transmission this occurs on both wires. As the signal is mirrored, the sum of the signal is always 0 and the fault is therefore absorbed or canceled out. The quality and interference immunity of the video transmission via the “Video ready” snap-in adapter is therefore significantly higher.



Differentiated video signal CVBS – test card

Index	Explanation
1	1V deviation

The cell phone must not be exposed to extreme ambient conditions. At high temperatures, functions such as charging can no longer be carried out. In some cases where Web Radio or other UMTS data services are continuously used, the iPhone™ can heat up to the point that it can lead to deactivation of the charging process at ambient temperatures as low as 23°C/73° F. To address this a media snap-in adapter with an integrated fan has been developed part # 84 21 2 218 390 for iPhone™ 4 and # 84 21 2 218 391 for 3g/3gs. Please refer to the latest aftersales parts bulletin for more information.

Media snap-in adapter with integrated fan for iPhone 4 # 84 21 2 218 390.

4.3.2. Video base plate

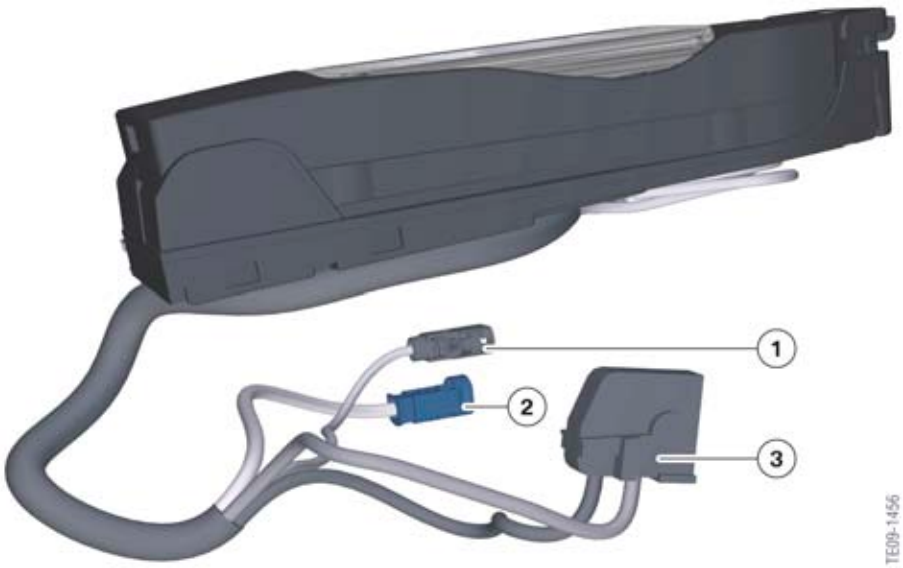
The newly developed video base plate enables the vehicle to access the video data saved on the smartphone. The audio signal of the video clip is connected to the Combox via the video base plate (SA6 NF) and iPod and USB adapter (SA 6FL) in the center console. The video signal is transferred to the headunit directly via the CVBS signal described above and via the interface of the video base plate.

In terms of its appearance when installed, the video base plate is no different to the base plate that "only" supports audio playback. In order to find out whether a video base plate is installed, the black 18-pin connector must be removed and the pinning checked.

BMW Apps/ConnectedDrive

4. System components

The relevant connection between the video base plate and the vehicle electrical system is explained in the following graphic:

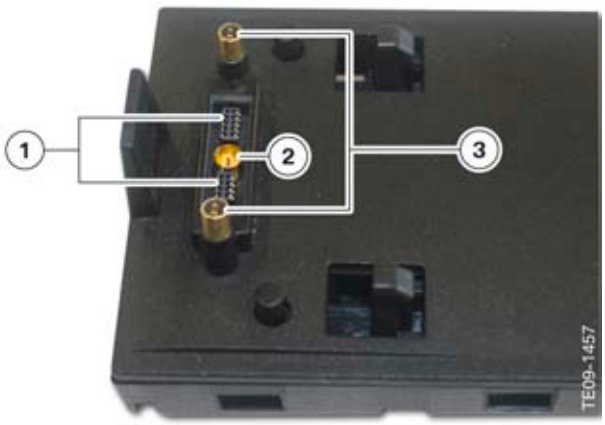


Wiring harness of video base plate with snap-in adapter and smartphone

Index	Explanation
1	Connection of base plate to roof antenna; connector color code: black
2	USB connection of base plate to USB hub; connector color code: blue
3	18-pin connector strip: voltage supply, CVBS (first cable); AUX_AF (second cable)

The control signals for the App (SA 6NR) are transmitted via a 4-core USB data line. The distinguishing feature of the specially developed base plate for extended connectivity of the music player in the cell phone is its two gold-plated pins.

The gold-plated pins also serve as locking pins for the snap-in adapter. The video lines that transmit the CVBS signal are located in the 18-pin multi-pin connector. This distinguishes the video base plate from the USB base plate used up until now.



Video base plate for USB connection of smartphones

Index	Explanation
1	18-pin multi-pin connector on base plate: voltage supply, AV signals (Aux_AF, CVBS and shielding)
2	Antenna connection to roof antenna
3	USB port: distribution of USB voltage supply (USB +, ground) and the two USB data lines (D+, D-) on gold-plated pins with shielding

Be careful when installing the snap in adapter on the base plate as the small pins may be damaged if it is inserted incorrectly and forced in.

4.4. Combox

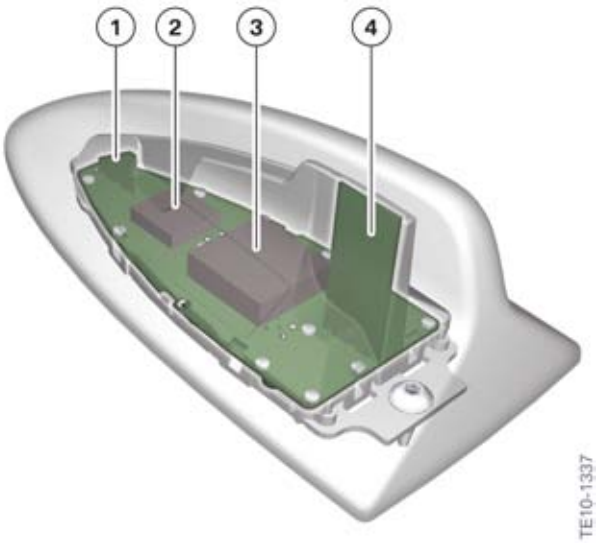
The Combox control unit is installed in the vehicle as a "Combox Telematics" telephone control unit and is only available in combination with BMW Assist. In addition to the general telephone functions, the **Combox** supports Office functions such as the calendar, text messages, email and the new BMW Apps. For more information on the Combox refer to the Combox training material ST1005 available on TIS and ICP.

Combox

BMW Apps/ConnectedDrive

4. System components

4.5. Telephone antenna



Telephone antenna

Index	Explanation
1	Telematics antenna
2	Satellite Digital Audio Radio Service receiver
3	GPS receiver
4	Cell phone antenna

BMW Apps/ConnectedDrive

5. ConnectedDrive

If the Combox, headunit (CIC) with CID and controller as well as the newly developed video base plate are installed, the customer can order the optional equipment SA 6NR "BMW Apps". This will include the "Video Playback" and "PlugIn" functions. The interaction of the components is highlighted in the following chapters.

5.1. BMW Apps

With **BMW Apps (SA 6NR)** the Apple™ iPhone™ **" Apps"** function is now available for the first time to BMW customers. These features are activated and controlled via the BMW iDrive user interface. An important point to note is that the software for the individual app is only installed on the iPhone™ and not in the headunit or Combox telephone control unit. The headunit is only required to integrate the functions in the vehicle. This means that problem-free functionality of the app depends on the app developer and the stability of the iPhone's operating system. With the incorporation of BMW apps, the menu structure of the iDrive system was modified. The menu item "BMW Assist" in the main menu screen was changed to "ConnectedDrive".

Main menu with "ConnectedDrive" menu item

Select the "ConnectedDrive" button to display the individual functions in the "BMW Apps" sub-menu. If this menu item is selected and an iPhone™ with the "BMW Connected" App installed is activated, the individual functions will be populated and displayed on the right side of the display screen.

ConnectedDrive menu in BMW vehicle with SA6NR

BMW Apps/ConnectedDrive

5. ConnectedDrive

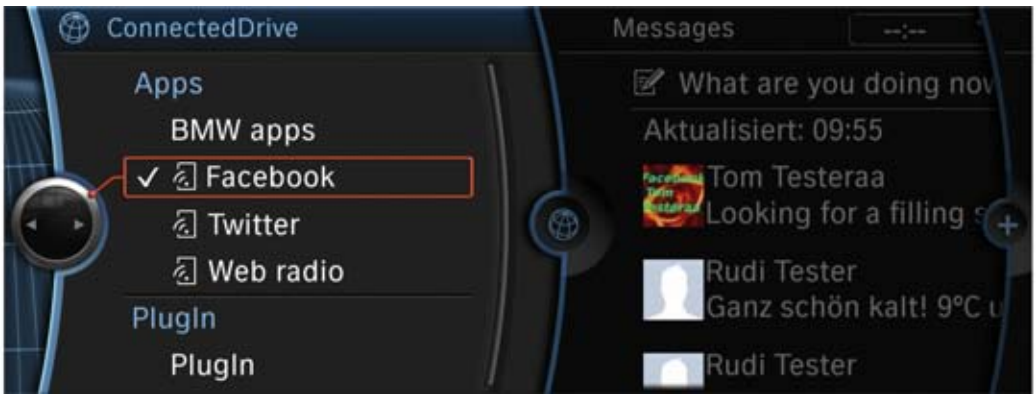
Index	Explanation
1	Apps menu heading
2	BMW Apps submenu
3	Start button: "Facebook" social network
4	Start button: "Twitter" social network
5	Start button: "Web radio" function
6	PlugIn menu heading
7	PlugIn start button

The individual apps and their functions are explained further below.

⚠

It is important to be aware that iPhone™ apps are constantly being enhanced and developed. The following functions correspond to the current status of the application and may not be the same as the actual version available in the iTunes™ Store.

5.1.1. Facebook™



Start button for "Facebook™" social network

The BMW customer can now also access his/her Facebook™ social network in the vehicle with the assistance of BMW Apps. This means the customer can also keep in touch with the contacts in his/her social network for the duration of the trip. The user can let the members of his social network know about what he/she is currently experiencing: e.g. "I need a filling station fast!". This feature also includes other pre-prepared messages which are randomly generated by the system. It is also possible for users to create their own messages and then post them on the spot. Furthermore, the customer can also learn about the status of other members of the social network or read their messages. Messages can be ”read out” with the voice command system option SA 620 (which is included with SA 609) while the vehicle is moving. This means that the driver can "check" messages without taking his/her eyes off the road. Note that the voice system (Text to Speech) only reads out the message in the language set in the headunit. For example: If the language is set to Spanish the speech processing system may therefore attempt to read out English text modules in Spanish.

BMW Apps/ConnectedDrive

5. ConnectedDrive

Facebook™ social network "Post status message"

Index	Explanation
1	Preparation window "Current status"
2	"Status" selection menu showing pre-prepared status entries
3	Selection of pre-prepared status entry
4	Posting of status entry
5	Message confirming successful posting of selected status message in Facebook portal

5.1.2. Twitter™

Twitter™ is a competitor product to Facebook™ in the area of social networking thus its functionality in BMW vehicles is very similar to Facebook™.

BMW Apps/ConnectedDrive

5. ConnectedDrive

"Twitter message" in Twitter social network

Index	Explanation
1	”Post Tweet" preparation window
2	"Tweets" selection menu with pre-prepared messages
3	Selection of a pre-prepared Tweet
4	Posting of Tweet
5	Message confirming successful publication of selected Tweet in Twitter portal.

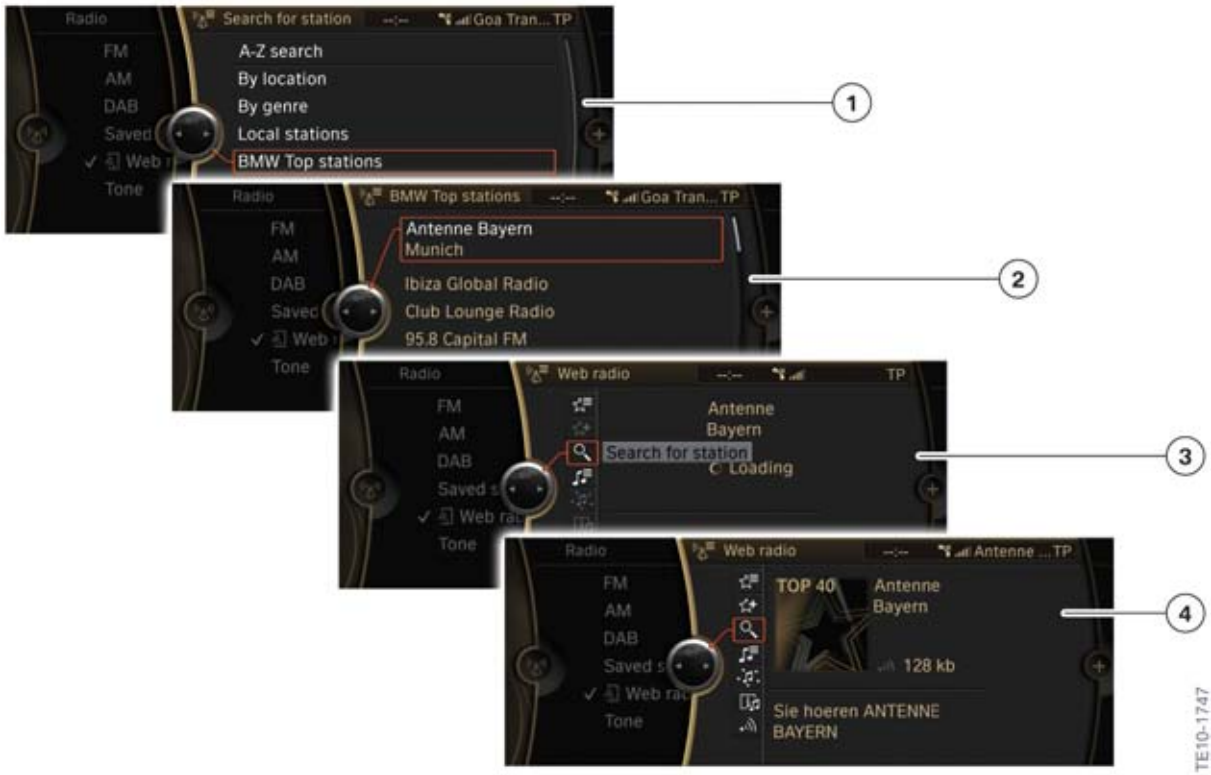
5.1.3. Web radio

The driver of a BMW vehicle that is networked with the outside world via the "Web radio" BMW App can receive the signal of his/her favorite radio station worldwide. Prerequisites for this process (known as "live streaming") are that the program must be listed in the database of broadcast stations and the relevant streaming format must be supported.

Once the app has been successfully activated, the customer can navigate to the "Web radio" sub-menu in the Radio menu. and add to several preset "BMW Top stations" by searching for radio stations worldwide based on selection criteria such as location, genre and local radio stations.

BMW Apps/ConnectedDrive

5. ConnectedDrive



"Web radio" radio menu

Index	Explanation
1	Selection of "BMW Top stations" with recommended radio stations
2	List of stations
3	Loading the selected station
4	Live stream = reception of chosen radio station via the Internet.

When the iPhone™ is used extensively (e.g. while using the Web radio) the iPhone's charging circuit may be deactivated if its temperature exceeds 40°C/104° F on iPhone™ 3G/S or 46°C/115° F on the iPhone™ 4. To address this issue a media snap-in adapter with an integrated fan has been developed, part # 84 21 2 218 390 for iPhone™ 4 and # 84 21 2 218 391 for 3G/3GS. Please refer to the latest Aftersales parts bulletin for more information.

5.1.4. Last Mile & Vehicle Finder

The Last Mile function was added to the list of BMW Apps in the spring of 2011 and it is available for download from the iTunes Portal™ as a "BMW Apps" software update. The Last Mile app guides the customer to his actual navigation destination, even if this in a location that is inaccessible to motor vehicles (e.g. pedestrian zone or city parking garage). Navigation continues after the customer has left the vehicle and uses the iPhone™ as a navigation tool.

BMW Apps/ConnectedDrive

5. ConnectedDrive

BMW Apps incl. Last Mile

Index	Explanation
1	Last Mile function in iPhone™

Once the customer has left the vehicle, the coordinates of the vehicle's location are transmitted to the iPhone™. It is important in this case to ensure that the Last Mile function is activated before exiting the vehicle. The last destination, next destination and final destination are also transmitted to the iPhone™. The last destination is useful in cases where the customer is unable to park at the actual destination, heads for the next multi-story parking lot and walks back to the previous destination (e.g. museum, theater, restaurant, etc.). The next and final destination become active if the customer has entered several destinations in the BMW navigation system route guidance.

BMW Apps/ConnectedDrive

5. ConnectedDrive

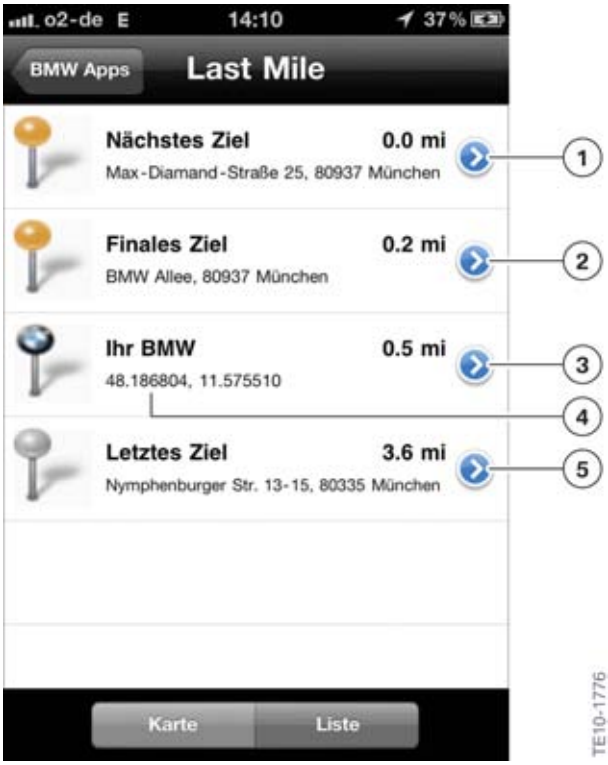
Overview of different destinations

Index	Explanation
1	Next destination
2	Final destination
3	iPhone™ location
4	Vehicle location
5	Last destination
6	List of destinations; vehicle location
7	Map view, combined satellite and map
8	Map view, satellite
9	Map view, road map
10	Use current position (see position 3)
11	Zoom function

When menu button 6 is pressed, a list of destinations and the current location of the vehicle appears. The vehicle coordinates are displayed in addition to the vehicle location. This is important as the BMW Navigation and iPhone™ Navigation (Google™) map data comes from different suppliers.

BMW Apps/ConnectedDrive

5. ConnectedDrive



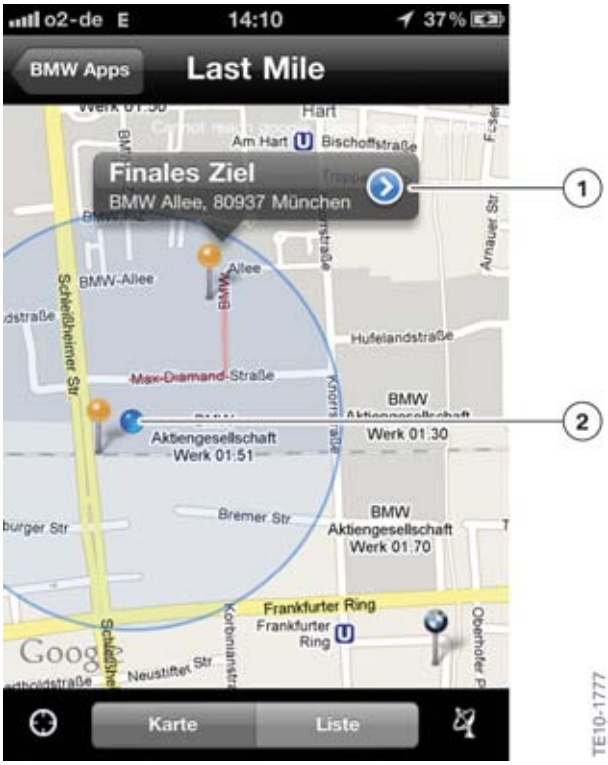
List of destinations

Index	Explanation
1	Next destination
2	Final destination
3	Distance to location of BMW vehicle
4	Coordinates of BMW vehicle
5	Last destination

Activate the zoom function to enlarge the relevant section of the map. Press the arrow button to display the extended information menu.

BMW Apps/ConnectedDrive

5. ConnectedDrive



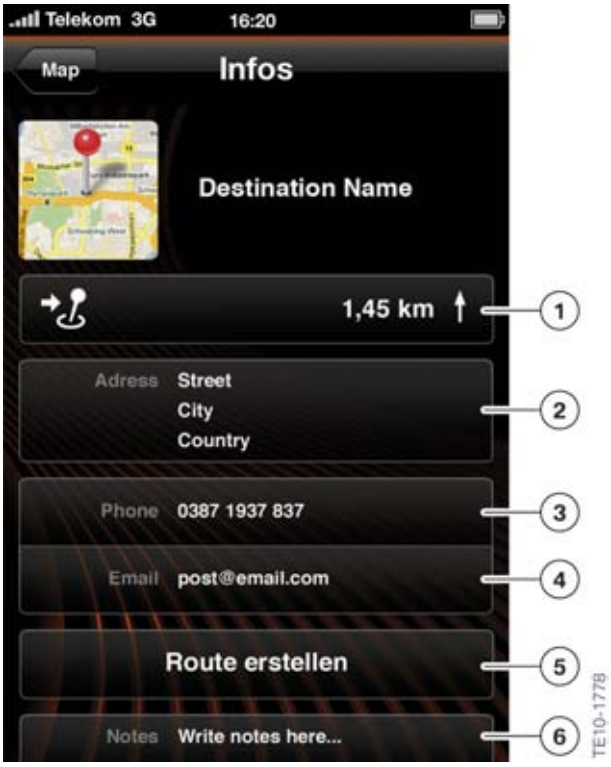
Zoom range

Index	Explanation
1	"Info" button
2	iPhone™ location

Additional information on the destination is displayed in the information section.

BMW Apps/ConnectedDrive

5. ConnectedDrive



Information menu

Index	Explanation
1	Distance to destination
2	Address data of destination
3	Telephone number
4	Email address of destination
5	Activation of route planning function
6	Notes

You can note down the location (pillar number/color for example) in the multi-level car park under "Notes".

BMW Apps/ConnectedDrive

5. ConnectedDrive

Example of note function

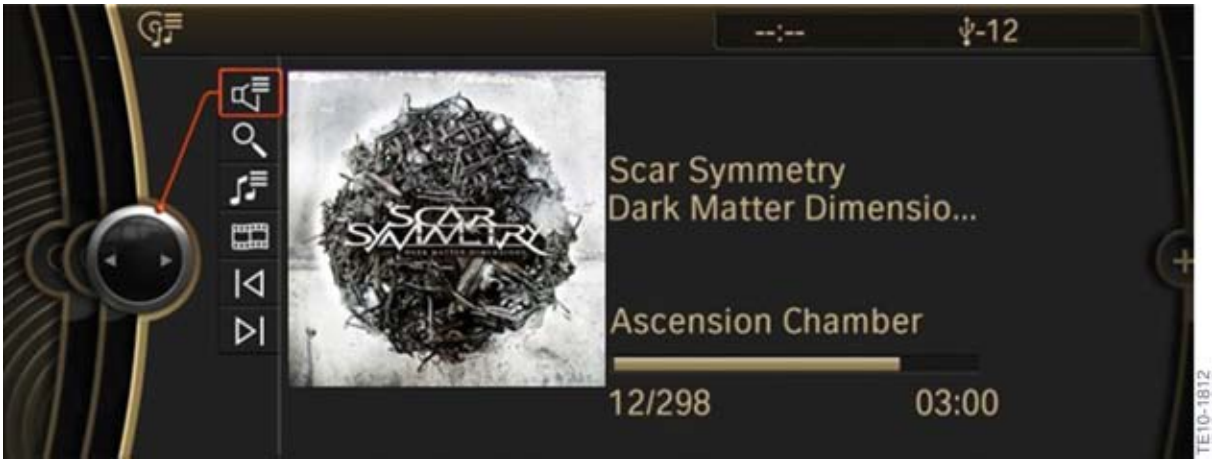
5.2. Smartphone Integration (Audio/Video Interface)

5.2.1. Video playback

The new "video base plate" makes it possible to play video clips in BMW vehicles. For safety reasons, this function is only supported when the vehicle is stationary. The video clips are displayed in the Central Information Display (CID) only, and not on the rear entertainment displays. The video signal is sent to the headunit from the iPhone™ via the “Media” snap-in adapter and base plate (see Chapter 4.3). Videos can be selected and played from the "CD/Multimedia – External audio devices" menu and the "ConnectedDrive – PlugIn" menu.

BMW Apps/ConnectedDrive

5. ConnectedDrive

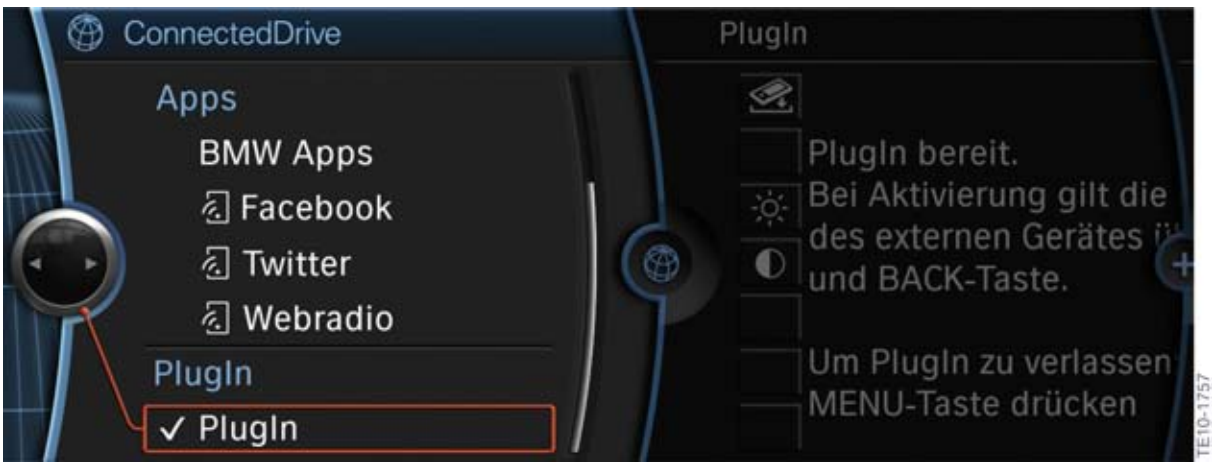


Playing back a video clip stored in the iPhone™

5.3. PlugIn

The PlugIn menu item allows the customer to create the look and feel of an Apple™ device when the iPhone™ is connected to the vehicle via the snap in adapter. The control signals in this case are transmitted through USB connection. The picture signals are rendered by the iPhone™ in the familiar optics used in the pervious iPod™ and output as video signal via a CVBS connection to the headunit.

The iPhone™ must be connected via the "Media" snap in adapter in order to display videos or operate the PlugIn feature. When addressing a customer complaint please make sure that the correct snap in adapter is being used. For more information refer to section 4.31 "Media" snap-in adapter.



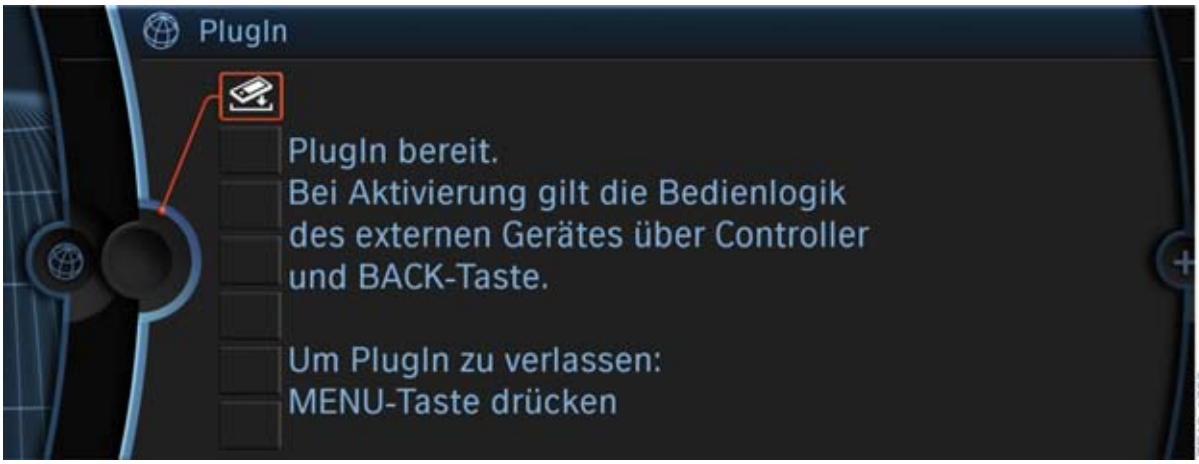
PlugIn has an Apple interface "Look and Feel"

BMW Apps/ConnectedDrive

5. ConnectedDrive

5.3.1. Starting PlugIn

Before starting the PlugIn feature make sure that the iPhone™ is connected via the “Media” snap in adapter in the center console. Once PlugIn has been selected, the connection between the iPhone™ and the vehicle is checked. Select the “PlugIn” button to start the function. In doing so, it is important to be aware that when the function is started, the usual BMW iDrive “turn-press-push" environment no longer applies. Although the push function no longer exists the user navigates through the menu by turning and pressing the controller and can still jump back one step via the “Back” button. Press the "Menu" button to exit the PlugIn function and return to the main menu of the BMW iDrive system.



PlugIn start screen

5.3.2. Genius music mixes

To give the customer an added benefit, iPhone™ Genius mixes can now also be accessed. Genius mixes browses the iTunes™ Media Library on the iPhone™ and automatically generates up to twelve genre-based mixes containing tracks that (according to the Apple™ Genius) "work well together". It is not possible to influence the selection directly. These mixes are compiled based on the experience of the worldwide iTunes™ community. The playlist generated by Genius can be saved on the iPhone™ or updated from time to time.

Genius mixes

It is also possible to compile a special mix containing several genres. In the example below, a mix has been compiled containing tracks from the "Alternative" and "Singer-Songwriter" genres.

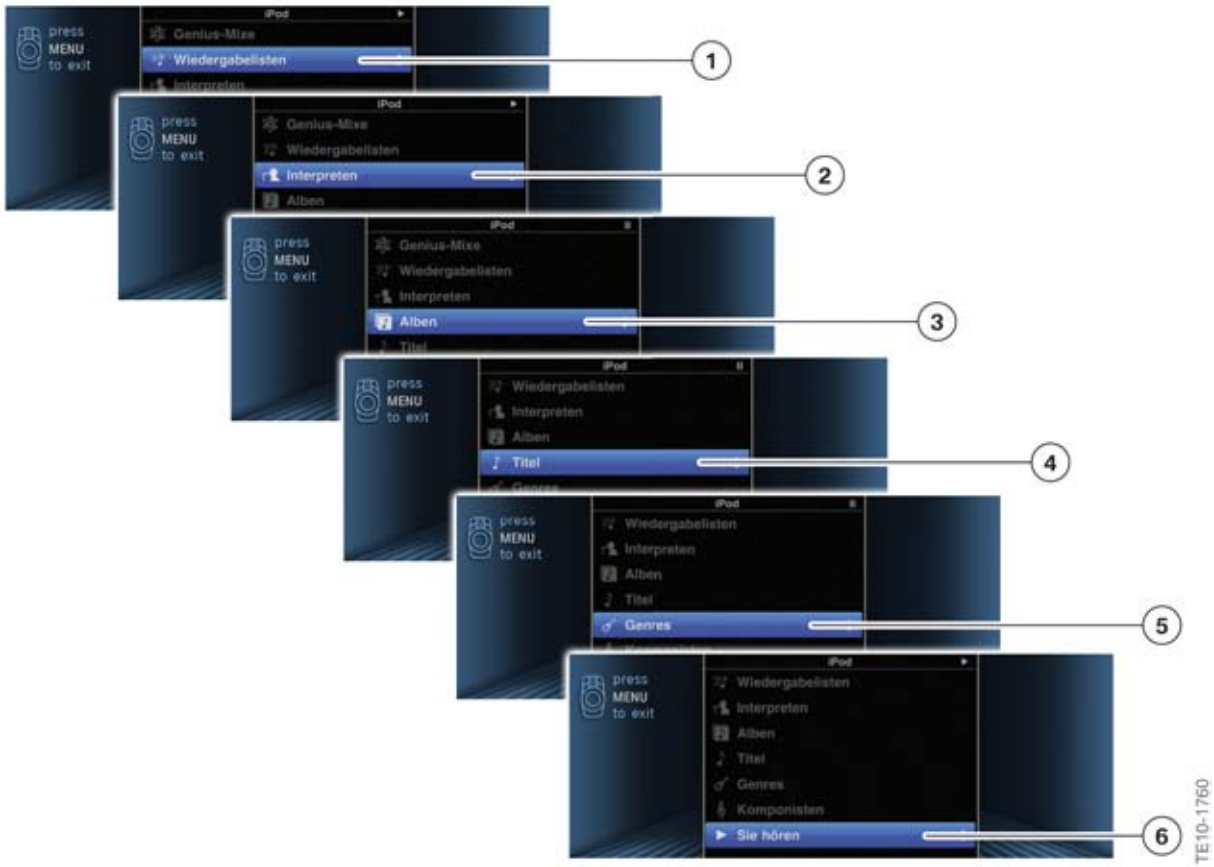
Example of Genius mix compilation

5.3.3. PlugIn menus

In addition to the Genius mix which is a relatively new function, the customer can access the familiar menu items from the Apple iPod™ which have been adopted without modification in the iPhone™.

BMW Apps/ConnectedDrive

5. ConnectedDrive



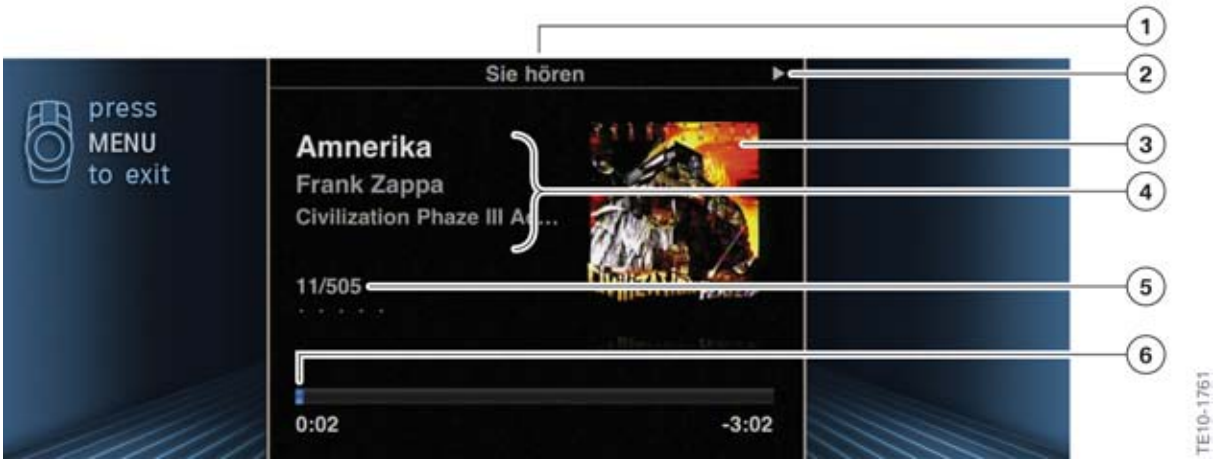
PlugIn menu

Index	Explanation
1	Playback lists (self-compiled by customer)
2	Artists
3	Albums
4	Track
5	Genre
6	"Playing" menu – music currently being played back

BMW Apps/ConnectedDrive

5. ConnectedDrive

5.3.4. Music playback



Music playback

Index	Explanation
1	"Playing" menu – music currently being played back
2	Playback or pause function with corresponding symbol
3	Album cover
4	Current track, artist and album title
5	11th song of a total of 505 music tracks stored on the iPhone™
6	0:02 seconds of the music track have elapsed and another 3:02 minutes remain

BMW Apps/ConnectedDrive

6. Self-diagnosis

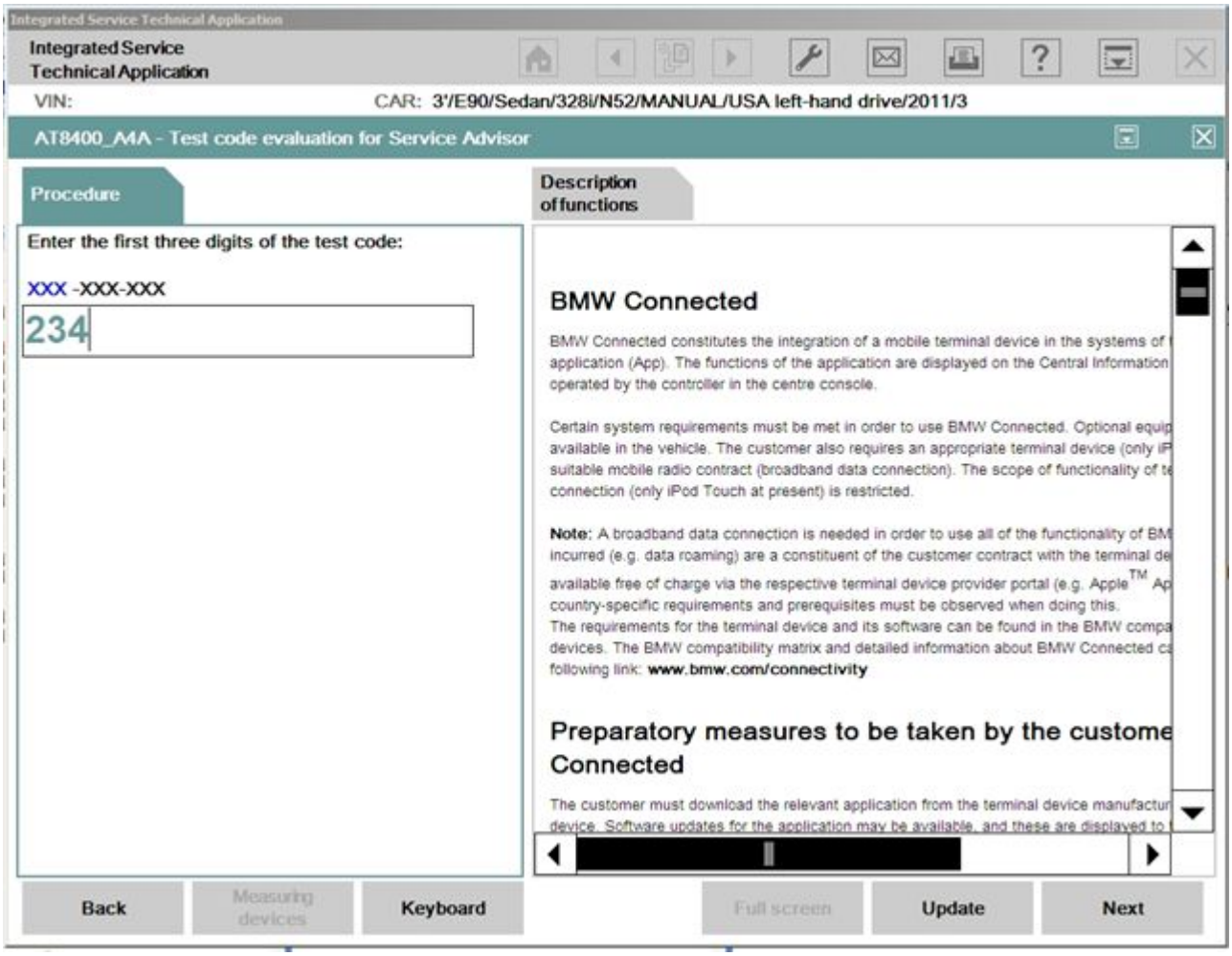
The ”BMW Connected” app on the iPhone™ includes a self-diagnosis function which can be used for troubleshooting in order to eliminate faults more quickly and systematically. If the BMW Connected app is not working properly, the customer can start the "self-diagnosis" via his/her iPhone™. In doing so, the iPhone™ must **not** initially be connected to the vehicle via the USB port. Once the self-diagnosis has been started, the customer will be prompted to connect the iPhone™ to the vehicle via the USB cable. Once the self-diagnosis has been completed, a nine-digit fault code is displayed for the customer.

BMW iPhone™ App Self-diagnosis code retrieval.

The customer can then quote that code to the Service department. Alternatively, the Service employee will need to start the self-diagnosis via the customer's iPhone™ then note down the fault code. Once the self-diagnosis is complete, the customer can take the iPhone™ with him/her, even if the vehicle has to remain in the workshop because the fault has not yet been eliminated. The test plan AT8400_A4A can be called up on ISTA or ISTA Client. The test plan prompts you to enter the iPhone diagnostic code. By entering the fault code in the diagnosis system, the fault can be traced back to the iPhone™, vehicle or connection (snap-in adapter) between the device and vehicle.

BMW Apps/ConnectedDrive

6. Self-diagnosis



Diagnosis system – input of fault code and display of iPhone™ details

Faults that are attributable to the iPhone™ will not be repaired by BMW Service and must be remedied by the manufacturer of the device or relevant app provider.

In order to trace faults on the vehicle, the service employee must perform a short test and run the telecommunication test plan (AT8400_SYSTEL). The relevant test module for evaluating the test code is integrated in this plan (A4A - Application 4 Automotive). The test code is decoded by the test plan. This provides the service employee with all of the necessary information. He is then able to perform a focussed diagnosis.

The test code can also be evaluated on a workshop computer (e.g. service advisor's computer). A functional ISTA client must be installed on this computer. The vehicle can be identified via the chassis number or its basic characteristics using the ISTA Client. Then a free test search can be made for the test module AT8400_A4A - Test code evaluation for service advisors in order to run the module. The test module can also be found at: Information search - Functional structure - Body - Audio, Video, Telephone, Navigation - Telecommunication - Documents - BMW Connected. This test module is only intended to be a source of information for service advisors and does not generate a diagnosis code. If a diagnosis code is needed, proceed as described in section Dealing with problems in the workshop.

BMW Apps/ConnectedDrive

6. Self-diagnosis

Note: In some cases where the device is not sufficiently charged by the vehicle, the use of a charging adapter # 61 12 2 167 663 may be necessary. Refer to Aftersales Bulletin # V-13-1010-6515 for more information.

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